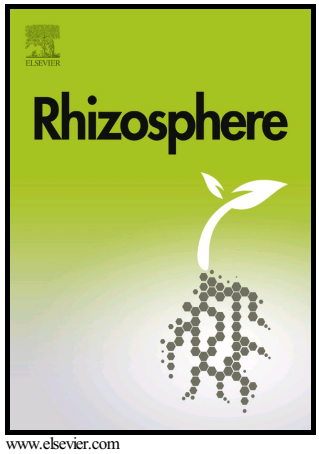

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Genotype-specific response of winter wheat (*Triticum aestivum* L.) to irrigation and inoculation with ACC deaminase bacteria

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Abstract

Drought stress is a major factor limiting wheat production in rain-fed areas around the world. Wheat tolerance to drought stress may be enhanced through genotypic selection, but recently, there has been interest in manipulating wheat-microbial interactions to promote drought tolerance. The prime objective of the study was to examine the effects of inoculation with 1-aminocyclopropane-1-carboxylic acid (ACC)-deaminase containing (ACC+) bacteria on different winter wheat genotypes (grown in 1 m tall × 10 cm diameter tubes) under water-stressed and well-watered conditions as determined by root length, above- and below-ground biomass, and leaf relative water content. The results of the present study revealed that under water stress, inoculation with ACC+ bacteria increased